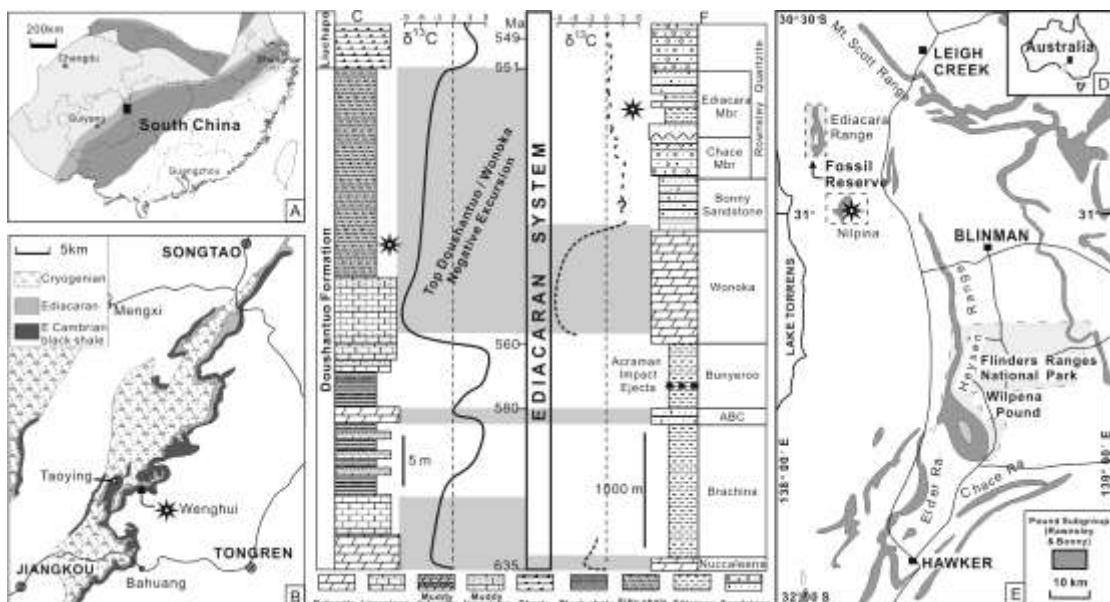


1 **Supplementary Figure in GSA Data Repository**

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3 Figure DR1. Geological maps and stratigraphic columns with sample localities and
 4 horizons. A, simplified Ediacaran paleogeographic map of South China showing
 5 location (black box) of Wenghui area. B, simplified geological map showing outcrops
 6 of Cryogenian, Ediacaran and basal Cambrian in the Wenghui area. Star marks fossil
 7 locality. C, stratigraphic log of the Wenghui section. Star marks the fossil horizon. D,
 8 Map of Australia showing studied area (black box). E, simplified geological map
 9 showing the Pound Subgroup outcrop and fossil locality (star). F, generalized
 10 Ediacaran stratigraphic log at the central Flinders Ranges. The shadows indicate the
 11 stratigraphic correlation. Generalized carbon isotopic curves are from Zhu et al.
 12 (2007), Jenkin (1995) and Calver (2000).

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1 **Supplementary Table in GSA Data Repository**

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3 Table DR1. Specimen numbers and sizes.

Specimen No.	Diameter (mm)		
	Min.	Max.	Aver.
Australian specimens			
1 SAM P42440	20	23	21.5
2 SAM P42441	30	32	31
3 NP01	18	28	23
4 SAM P42442	35	36	35.5
5 NP02	11	21	15.5
6 NP03	12	38	25
7 NP04	17	19	18
8 SAM P42443	23	23	23
9 SAM P42444	22	41	31.5
10 SAM P42445	32	35	33.5
11 SAM P42446	23	24	23.5
12 NP05	8	15	11.5
13 NP06	17	25	21
14 NV01	26	35	30.5
15 NV02	31	33	32
Chinese specimens			
1 ELRC-D-001	21	23	22
2 ELRC-D-002	17	20	18.5
3 GTB 42-172	42	46	44
4 GTB 50-225	11	12	11.5
5 GTB 50-313	18	19	18.5
6 GTB 50-347	34	36	35
7 GTB 50-380	28	30	29
8 GTB 50-579	36.5	35	35.75

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